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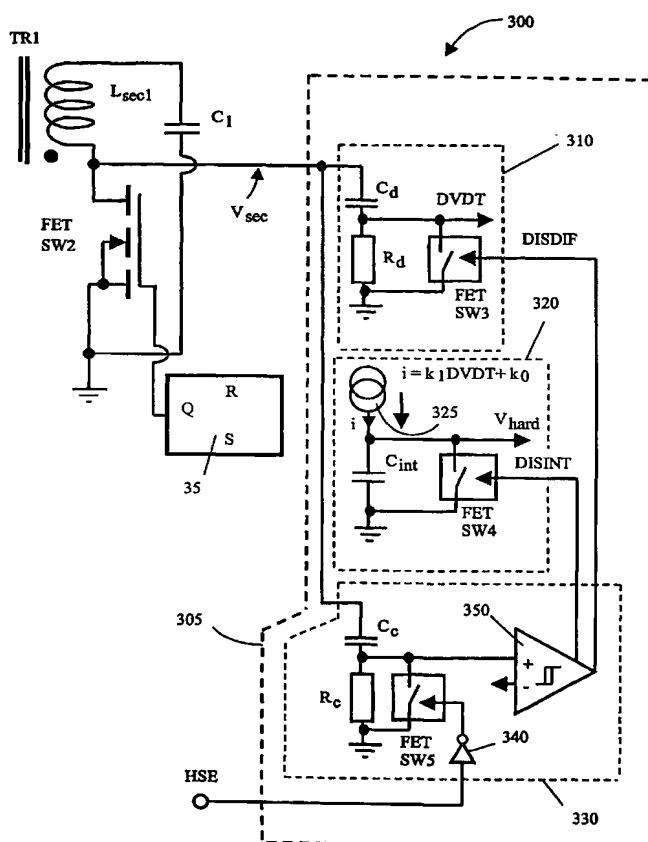
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(54) Title: **SWITCH MODE POWER CIRCUIT**



(57) Abstract: There is provided a switch mode power supply circuit (10) including at least one inductive component (TR1) coupled to an associated switching device (FET SW1) for cyclically connecting the inductive component (TR1) to a source of power (V_{mains}). The circuit (10) includes a signal output (V_{sec1}) representative of a voltage (V_{prim}) at a junction of the at least one inductive component (TR1) to the switching device (FET SW1). The circuit (10) further comprises a hard switching amplitude detector (300) for deriving a measure of hard switching amplitude (V_{hard}) occurring in operation in the switching device (FET SW1), the detector (300) including a signal processing path for receiving the signal output (V_{sec1}) and generating the measure of hard switching amplitude (V_{hard}) therefrom. The signal path includes: a signal differentiator (310) for imperfectly differentiating the signal output (V_{sec1}) to generate a corresponding imperfectly differentiated signal (DVDT); and a signal integrator (320) for integrating the imperfectly differentiated signal (DVDT) in a temporally-gated manner for generating the measure of hard switching (V_{hard}).



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